



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,439	01/26/2001	Kazuko Matsumoto	TOYAM67.001AUS	8038

20995 7590 07/30/2003

KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614

EXAMINER
----------

ZITOMER, STEPHANIE W

ART UNIT	PAPER NUMBER
----------	--------------

1634

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/771,439	MATSUMOTO, KAZUKO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Stephanie Zitomer	1634	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1634

## DETAILED ACTION

### Application status

1. Receipt of the amendment filed March 12, 2003 is acknowledged.
2. All rejections set forth in the Office action mailed September 10, 2002 have been withdrawn in view of new grounds for rejection. Applicant's arguments have been fully considered but are deemed moot in view of the withdrawals.

### Priority information

3. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

*The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.*

### Rejection under 35 U.S.C. 103(a): Obviousness

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Ford et al. (6,472,173) in view of Schellenberg et al. (5,449,604), Christian et al. (6,432,650) and Szyf et al. (6,054,439) and further in view of Fodor et al. (5,800,992). Ford et al. teach a method for collecting nucleic acids in which the first two steps are the same as those of applicant's claim 1 method comprising contacting a sample nucleic acid solution with a nucleic acid-immobilized substrate comprising single-stranded nucleic acids having different nucleotide sequences each separately immobilized on the substrate whereby immobilized portions of the nucleic acids are provided on the substrate; hybridizing the immobilized nucleic acids and complementary sample nucleic acids to form hybridized nucleic acids (column 76, lines 6-31 and 53-54). The claimed

Art Unit: 1634

invention method differs from that of Ford et al. in a third step wherein the hybridized nucleic acids are collected separately according to the immobilized portions by a means selected from the group consisting of rubbing off the immobilized portions and shaving off the immobilized portions.

However, the prior art is replete with means for collecting and transferring nucleic acids from one medium to another and "rubbing off" and "shaving off", i.e., scraping, scratching and cutting, were routinely practiced in the molecular biology art. For example, Schellenberg et al. teach collecting the DNA of a selected chromosomal band region by scraping from karyotyped DNA (chromosomal DNA spread on a microscope slide or coverslip) (column 20, line 66-column 21, line 1). Christian et al. also teach collecting DNA regions of interest from metaphase chromosome spreads by scratching them off the coverslip carrying the spread (column 12, line 23, lines 54-55) employing microdissection with a glass needle (column 13, lines 38-41). In a further example, Szyf et al. teach scraping nucleic acid spots from an array of spots on a thin layer chromatography plate (column 11, lines 26-30). Ford et al. teach excising nucleic acid spots from an array of nucleic acid spots on dried membrane filters (column 42, lines 49-53). Accordingly, it would have been obvious and the skilled practitioner in the art would have been motivated to select a known means for collecting nucleic acids from an array based on personal preference, type of substrate and available means. The prior art teaches that scraping, scratching and cutting, i.e., rubbing and shaving, were routine means for collecting nucleic acids of interest if so desired from nucleic acid spots in an array on a substrate and that all of these means operated in the same way and produced the same results, removal of selected nucleic acids. An express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982). It is well settled that the selection of a known material based on its suitability for its intended purpose is *prima facie* obvious. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

Art Unit: 1634

Regarding claim 2, Ford et al. teach the embodiment wherein the nucleic acids are immobilized via a compound having a carbodiimide group carried on the substrate (column 39, lines 8-10).

Regarding claims 3 and 4, Ford et al. teach the embodiment wherein the nucleic acid-immobilized substrate is a DNA microarray (chip: column 39, lines 31-35 and 68-61).

Regarding claims 5-8, Ford et al. teach the embodiment wherein the substrate has a plate shape (column 39, lines 34-36 wherein the glass surface of Fodor et al. was known to be a glass microscope slide, i.e., a glass plate (Fodor et al. '992 patent, column 65, lines 59-60).

#### **Conclusion**

5. **No claim is allowed.**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephanie Zitomer whose telephone number is (703) 308-3985. The examiner can normally be reached on Monday through Friday from 10:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (703) 308-1152. The official fax phone number for this Group is (703) 308-4242. The unofficial fax number is (703) 308-8724. The examiner's Rightfax number is 703-746-3148.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196. For questions and requests relating to formal matters contact LIE Chantae Dessau at 703-605-1237.



Stephanie Zitomer, Ph.D.

July 25, 2003

**STEPHANIE W. ZITOMER**  
**PRIMARY EXAMINER**